Pneumatosis Intestinalis, Mesenteric Venous Gas and Portal Venous Gas

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A 68-year-old male patient was treated in our hospital for rectal cancer by a low anterior resection. While recovering, he complained of sudden-onset abdominal pain on the 14th postoperative day. At physical examination the abdomen was tender, and laboratory findings

showed elevated inflammatory parameters and metabolic acidosis. Since he progressively developed hypotension, tachycardia and dyspnea, a severe cause for his condition was suspected and an urgent contrast-enhanced abdominal CT scan was performed. This re-

Fig. 1. Gas in the intestinal wall of the ascending colon.

Fig. 2. Gas in the superior mesenteric vein.

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Fig. 3. Gas in the portal system.

vealed the presence of gas in the intestinal wall (pneumatosis intestinalis) of the ascending colon (fig. 1), gas in the superior mesenteric vein (fig. 2) and gas in the portal system (fig. 3). At relaparotomy a necrotic ascending colon was found and resected, after which the patient eventually recovered. Histological examination of the resection specimen showed signs of severe ischemia and necrosis.

Hepatic portal venous gas in adults is a rare and potentially severe radiological finding. If combined with other radiological or clinical signs of intestinal ischemia, such as pneumatosis intestinalis or severe sepsis, the prognosis is dismal and urgent laparotomy is mandatory [1]. However, nonischemic causes of hepatic portal venous gas such as inflammatory bowel disease, biliary infection or intra-abdominal abscesses can often be treated conservatively [2, 3].

References

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